

**Timber Structures - Test methods - Torsional resistance  
of driving in screws**

This document is a preview generated by EVS

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15737:2009 sisaldab Euroopa standardi EN 15737:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.10.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 19.08.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 15737:2009 consists of the English text of the European standard EN 15737:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.10.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 19.08.2009.

The standard is available from Estonian standardisation organisation.

ICS 91.080.20

### Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:  
Aru 10 Tallinn 10317 Eesti; [www.evs.ee](http://www.evs.ee); Telefon: 605 5050; E-post: [info@evs.ee](mailto:info@evs.ee)

### Right to reproduce and distribute Estonian Standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Estonian Centre for Standardisation.

If you have any questions about standards copyright, please contact Estonian Centre for Standardisation:  
Aru str 10 Tallinn 10317 Estonia; [www.evs.ee](http://www.evs.ee); Phone: +372 605 5050; E-mail: [info@evs.ee](mailto:info@evs.ee)

English Version

## Timber Structures - Test methods - Torsional resistance of driving in screws

Structures en bois - Méthodes d'essai - Force de torsion et résistance au vissage

Holzbauwerke - Prüfverfahren - Einschraubdrehmoment von Schrauben

This European Standard was approved by CEN on 17 July 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

## Contents

Page

Foreword.....	3
1 Scope .....	4
2 Normative references .....	4
3 Terms and definitions .....	4
4 Symbols .....	4
5 Material requirements .....	4
5.1 Fasteners .....	4
6 Test Methods.....	5
6.1 General.....	5
6.2 Conditioning.....	5
6.3 Sampling.....	5
6.4 Test piece dimensions .....	5
7 Test.....	6
7.1 Test setup .....	6
7.2 Procedure .....	6
7.3 Results .....	7
8 Test report .....	7
8.1 Test piece .....	7
8.2 Test method.....	7
8.3 Test results.....	7

## Foreword

This document (EN 15737:2009) has been prepared by Technical Committee CEN/TC 124, "Timber Structures", the secretariat of which is held by SFS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2010, and conflicting national standards shall be withdrawn at the latest by February 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This test standard provides information how to determine the torsional resistance to insertion of screws into timber with a reference to requirements specified in EN 14592.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This standard specifies a test method to determine the torsional resistance to driving of screws in solid timber or glued laminated timber or other wood based materials.

## 2 Normative references

The following referenced documents are essential to the use of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14592:2008, *Timber Structures – Dowel type fasteners - Requirements*

ISO 3130, *Wood – Determination of moisture content for physical and mechanical tests*

ISO 3131, *Wood – Determination of density for physical and mechanical tests*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **Moment cell**

device that records the torque applied

### 3.2

#### **Test piece**

element or part of an element that will include the driven screw after the test made of solid timber, glued laminated timber or wood based materials or combinations of these materials

## 4 Symbols

$P$	Penetration ratio;
$R_{\text{tor,max}}$	maximum screw insertion moment, in Newton millimetre;
$R_{\text{tor,r}}$	screw insertion resistance, in Newton millimetre;
$R_{\text{tor,s}}$	screw insertion strength, in Newton millimetre;
$d$	nominal diameter, in millimetre;
$l$	is total length of the screw, in millimetre.

## 5 Material requirements

### 5.1 Fasteners

The screws shall comply with the requirements given in 6.3 of EN 14592:2008